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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,797	06/05/2000	Yun Hyung Yi	52467-081	7980
34610	7590	11/28/2003		
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			EXAMINER NGUYEN, TAI V	
			ART UNIT 3729	PAPER NUMBER 18
DATE MAILED: 11/28/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/586,797

Applicant(s)

YI, YUN HYUNG

Examiner

Tai Van Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-36 is/are pending in the application.
- 4a) Of the above claim(s) 28-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The applicants amendment filed 09/16/2003 (paper No. 14) has been fully considered and made of record. The applicant's arguments have been found to be persuasive with respect to the merits of Sakurai. Accordingly, the rejection (in Paper No. 11) has been withdrawn.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13-17 and 21-25 are rejected under 35 U.S.C. as being anticipated by Okumura et al (US 4,914,808).

Regarding claims 13 and 21, Okumura et al discloses a method for surface mounting electrical components on a printed circuit board (PCB) with a surface mounter, comprising: locating a PCB (11, Fig. 1) at a first mounting position; picking up a plurality of electrical components (1, Fig. 1) with a corresponding plurality of suction nozzles (6, Fig. 1); and moving the plurality of suction nozzles (T, Fig. 1) simultaneously to substantially simultaneously mount a plurality a electrical components on the PCB

Regarding claims 14 and 22, Okumura et al discloses the PCB at multiple mounting positions, i. e. a second mounting position, within the working area of the

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surface mounter (see Fig. 1); and repeating the picking and moving steps (see Col. 3, lines 53-56).

Regarding claims 15 and 23, Okumura et al discloses that the moving step comprises simultaneously moving the plurality of suction nozzles (6) with respect to each other to mount the electrical components on the PCB (11).

Regarding claims 16 and 24, Okumura et al the moving step comprises simultaneously moving the plurality of suction nozzles with respect to each other in both the X and Y directions to mount the electrical components on the PCB (see Col. 4, lines 41-59).

Regarding claims 17 and 25, Okumura et al discloses the steps of checking the alignment of the electrical components held by the plurality of suction nozzles; and selectively rotating the suction nozzles and the held electrical components based on the results of the checking step before performing the moving step (see Col. 6, lines 24-40).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18-20 and 26-27 are rejected under U.S.C. 103(a) as being unpatentable over Okumura et al in view of Baker (US. 5,323,528).

Regarding claims 18-20, 26 and 27, the X-Y table 10 of Kumura is read as the claimed "moving member" or the claimed "second conveyer", in which the moving member is located at various mounting positions, i. e. first, second, etc.

Okumura does not teach a "conveyer" or a "first conveyer".

Baker teaches a conveyer, or first conveyer 21, to transfer a PCB to a second conveyer or movable member 23. The PCB is transferred back to the first conveyer after the nozzles are moved (see Figs. 1 and 5). The benefits of having a conveyer, or first conveyer, provides for placement of the components on the PCB with greater reliability without the need for constant readjustment (see Col. 5, lines 40-44).

It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the Okumura et al method by adding the movable member, or first conveyer, as taught Baker, to positively provide component placement with greater reliability.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 703-308-1791. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Tn.  
November 25, 2003



**A. DEXTER TUGBANG**  
**PRIMARY EXAMINER**